# Commentary: Week 1

CSE120: Computer Science: Principles

The week’s goal is to get started in an easy, fun way. Building confidence and rapport.

**Pre-course survey:** The point of the survey is simply to learn a bit about the students. If the class is a manageable size, then I use the information to send a personal email to each student (in the first 10 days) asking a question about their background or activities. If the class isn’t manageable, the task must be off-loaded to assistants.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Lecture 1 | Lab 1 | Lecture 2 | Lab 2 | Lecture 3 |
| Assignment 1 | | Assignment 2 | | Assignment 3 |

**Lecture 1:** There are several goals; one is to breakdown barriers – I ask to be called by my first name; everyone tells something interesting about themselves; everyone tells a favorite food. Another is to excite the class that we will be do interesting, substantive stuff. The other is to set some ground rules – mostly this is in the form of two sets of expectations: Theirs for me; mine for them.

**Assignment 1:** Playing Lightbot 2.0 is programming, but the students don’t know this yet. Any simple game that involves programming would probably work. I like LB2.0 because it is simple enough for students to figure out on their own, challenging in places, introduces (parameterless) functions, and has recursion. It can be the basis of student-developed games, but I don’t use it that way. The “grade” is assigned if students turn in a survey explaining what they did. This survey is a useful intro to the student’s behavior. BE ALERT for students who quit quickly on this – their lack of persistence can be a signal of future trouble.

Note: There are now many Lightbot games online, but they don’t all do what we need in CSE120. Please use the version <http://coweb.cc.gatech.edu/ice-gt/1835>

**Lab 1 has 3 parts:** The essay is designed to pump up students who come to the class thinking they are inferior to the hotshots in the room – it works in physics. I do this every year; I have no idea if it does any good in my class. [Caution – don’t lead students into topics; one year I mentioned “family is important” as a value, and they all picked this and not much more.] The second part is just to be sure students have started on Lightbot and handle any problems. Finally, I explain FTP and file transfer to/from UW servers; this is a very situation-specific topic, and everyone needs to localize.

**Lecture 2:** This lecture introduces programming and program execution based on the student’s experience of LightBot 2.0. It is fun lecture because it introduces ideas that are not so obvious, but become so when they think about what happened in LB2.0. Notice that this icon is a signal in the slides that I am doing an in class demo. Usually, but not always, the slide(s) that follow show stills of what happened. The patter that goes with the demo is not recorded in any way. I like to emphasize the use of functions here, and doing so really helps in the serious programming to come.

Just Do It!

Note, I mention that the slides are posted AFTER class to motivate students to take notes.

**Assignment 2:** The goal of this assignment is to transition from the drag-and-drop form of LB2.0 to a textual form of programming. It is the same material, just different problems that are slightly harder, and doing it in text.

**Lab 2:** The goal is to put up a simple Web page using the file transfer information from the first lab. Getting the page to load with a personal picture and changed text is the objective. [This lab has been a total disaster at times when the Web space isn’t available.]

**Lecture 3:** This lecture extends the previous lecture, emphasizing the power of functions and using them as our first example of abstraction. Abstraction is tough, and patiently going through this is important.

**Assignment 3:** We extend the function discussion of the lecture with one more textual exercise with LB2.0. This one culminates in the Moonwalk of Michael Jackson fame, which these days must be explained to about 1/3 of the class!